

GenCore version 4.5
Copyright (c) 1993 - 2000 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: January 7, 2002, 15:40:13 ; Search time 154.28 seconds
(Without alignments)
22.086 Million cell updates/sec

Title: US-08-569-749-7

Sequence: 1 LARAGFYRIGPDRAVACFAC.....WEPRKDAWEHRHPCPF 46

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 522463 seqs, 74073290 residues

Total number of hits satisfying chosen parameters: 522463

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :

A-Geneseq_1101:*

- 1: /SIDS2/gcgdata/geneseq/geneseq/AA1980.DAT:*
- 2: /SIDS2/gcgdata/geneseq/geneseq/AA1981.DAT:*
- 3: /SIDS2/gcgdata/geneseq/geneseq/AA1982.DAT:*
- 4: /SIDS2/gcgdata/geneseq/geneseq/AA1983.DAT:*
- 5: /SIDS2/gcgdata/geneseq/geneseq/AA1984.DAT:*
- 6: /SIDS2/gcgdata/geneseq/geneseq/AA1985.DAT:*
- 7: /SIDS2/gcgdata/geneseq/geneseq/AA1986.DAT:*
- 8: /SIDS2/gcgdata/geneseq/geneseq/AA1987.DAT:*
- 9: /SIDS2/gcgdata/geneseq/geneseq/AA1988.DAT:*
- 10: /SIDS2/gcgdata/geneseq/geneseq/AA1989.DAT:*
- 11: /SIDS2/gcgdata/geneseq/geneseq/AA1990.DAT:*
- 12: /SIDS2/gcgdata/geneseq/geneseq/AA1991.DAT:*
- 13: /SIDS2/gcgdata/geneseq/geneseq/AA1992.DAT:*
- 14: /SIDS2/gcgdata/geneseq/geneseq/AA1993.DAT:*
- 15: /SIDS2/gcgdata/geneseq/geneseq/AA1994.DAT:*
- 16: /SIDS2/gcgdata/geneseq/geneseq/AA1995.DAT:*
- 17: /SIDS2/gcgdata/geneseq/geneseq/AA1996.DAT:*
- 18: /SIDS2/gcgdata/geneseq/geneseq/AA1997.DAT:*
- 19: /SIDS2/gcgdata/geneseq/geneseq/AA1998.DAT:*
- 20: /SIDS2/gcgdata/geneseq/geneseq/AA2000.DAT:*
- 21: /SIDS2/gcgdata/geneseq/geneseq/AA2001.DAT:*
- 22: /SIDS2/gcgdata/geneseq/geneseq/AA2001.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	269	100.0	46	AAW13549	Human c-IAP1 repa
2	269	100.0	438	AAW04583	Human inhibitor of
3	269	100.0	618	AAW19746	Human inhibitor of
4	269	100.0	618	AAW19583	Human inhibitor of
5	269	100.0	618	AAW13545	Human c-IAP1, Hom
6	269	100.0	618	AAW69296	Human H1AP-2 prote
7	269	100.0	618	AAW33998	Human cellular inh
8	264	98.1	612	AAW13555	Murine c-IAP, Mus
9	264	98.1	612	AAW69299	Murine H1AP-2 prot
10	257	95.5	306	AAU02925	Angiotensin conver
11	255	94.8	591	AAW19586	Mouse apoptosis in

12	251	93.3	604	AAW19582	Human apoptosis in
13	251	93.3	604	AAW69295	Human H1AP-1 prote
14	248	92.2	46	AAW13550	Human c-IAP2 repa
15	248	92.2	604	AAW19747	Human inhibitor of
16	248	92.2	604	AAW13546	Human c-IAP2, Hom
17	248	92.2	604	AAW152703	Human cellular inh
18	248	92.2	604	AAW33997	Human H1AP-2 prote
19	248	92.2	1141	AAW0694	Human API2-MIT chi
20	241	89.6	600	AAW69298	Murine H1AP-1 prot
21	241	89.6	602	AAW19585	Mouse apoptosis in
22	192	71.4	497	AAW19581	Human H1AP protein
23	192	71.4	497	AAW99985	Human X-linked inh
24	192	71.4	497	AAW99985	Human X-linked inh
25	182	71.4	497	AAW99985	Human X-linked inh
26	187	69.5	496	AAW19745	Mouse inhibitor of
27	187	69.5	496	AAW19584	Mouse apoptosis in
28	187	69.5	496	AAW69297	Murine XIAP protei
29	155	57.6	236	AAW81440	Human TIAP (an inh
30	155	57.6	236	AAW00365	Human IAP-like pro
31	155	57.6	236	AAW00366	Chimpanzee IAP-lik
32	154	57.2	236	AAW00367	Gorilla IAP-like p
33	149	55.4	1232	AAW98217	Neuronal apoptosis
34	149	55.4	1295	AAW14080	Conadotropic hormo
35	149	55.4	1295	AAW09540	Human apoptosis in
36	149	55.4	1403	AAW20032	Neuronal apoptosis
37	149	55.4	1403	AAW20033	Neuronal apoptosis
38	149	55.4	1403	AAW14079	Conadotropic hormo
39	149	55.4	1403	AAW09539	Human apoptosis in
40	149	55.4	1403	AAW88053	Human N1AP protein
41	140	52.0	498	AAW19748	Drosophila inhibit
42	133.5	49.6	4829	AAW97833	Human apoptosis in
43	133	49.4	48	AAW13551	Human c-IAP1 repa
44	132	49.1	438	AAW48189	Drosophila mutant
45	131	48.7	438	AAW48191	Drosophila mutant

ALIGNMENTS

RESULT 1

ID	AAW13549 standard: Protein; 46 AA.	ALIGNMENTS
XX	AAW13549:	
XX	22-JUL-1997 (first entry)	
XX	Human c-IAP1 repeat 2.	
XX	IAP: inhibitor; apoptosis; RING finger domain; restinosis;	
KW	myocardial infarction; nephritis; HIV.	
OS	Homo sapiens.	
XX	WO9706182-A1.	
XX	20-FEB-1997.	
XX	06-AUG-1996; 96MO-US12860.	
XX	08-DEC-1995; 95US-0569749.	
XX	08-AUG-1995; 95US-0512946.	
PA	(TULIA-) TULIRIK INC.	
PI	Goeddel DV, Rothe M;	
XX	WPL: 1997-154209/14.	
XX	Nucleic acids encoding cellular inhibitor of apoptosis proteins	
XX	useful for apoptosis regulation in cells to reduce or increase	
XX	apoptosis and for pharmacological screening	

PS Claim 3: Page 24; 35pp; English.

CC The human cellular inhibitor of apoptosis proteins (c-IAP1/2 -
CC AAW61590/T61591) comprise a series of defined structural domain
CC repeats and/or a RING finger domain; in particular, at least two of
CC a first domain repeat (AAW13547 or AAW13548), a second domain repeat
CC (AAW13549 or AAW13550), and a third domain repeat (AAW13551 or AAW13552)
CC and/or a RING finger domain (AAW13553 or AAW13554), or a consensus
CC sequence derived from these human genes.
CC The nucleic acid is used for recombinant prodn. of human cellular
CC inhibitor of apoptosis protein which modulates apoptosis
CC regulation. The nucleic acids are useful in therapies where
CC increased cell-specific apoptosis is desired, e.g. in restinosis,
CC inflammatory disease states, myocardial infarction, glomerular
CC nephritis, transplant rejection and infectious diseases, e.g. HIV.
CC They can also be used in conditions requiring a reduction in
CC apoptosis.

CC Sequence 46 AA;

Query Match 100.0%; Score 269; DB 18; Length 46;
Best Local Similarity 100.0%; Pred. No. 6.3e-27;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 LARAGFYIIGPGRVACFACGKLSNWEKDDAMSEHRRHPNCPF 46
1 laregfyiigpgrvactacgklsnwekddamsehrhrrhpncpf 46

RESULT 2

AAW04583
ID AAW04583 standard; Protein: 438 AA.

AAW04583;

07-FEB-1997 (first entry)

Human Inhibitor of Apoptosis gene 1.

CC Inhibitor of Apoptosis 1; hIAP-1; degenerative disease;
CC rheumatoid arthritis; septic shock; antiviral; trauma; stroke;
CC cell death; oncogenesis; cancer; diagnosis; therapy.

Homo sapiens.

WO9635703-A1.

14-NOV-1996.

11-MAY-1995; 95MO-US05922.

11-MAY-1995; 95MO-US05922.

(HUMA-) HUMAN GENOME SCI INC.

He MW, Hudson PL, Rosen CA;

WPI: 1996-518608/51.

N-PSDB; AAT43709.

Polynucleotide encoding human inhibitor of apoptosis gene 1 - useful
for treating degenerative diseases, as antiviral defence mechanism
and preventing cell death during trauma and strokes

Claim 1: Page 40-41; 53pp; English.

CC Human inhibitor of apoptosis 1 (hIAP-1) (AAW04583) is a protein
CC useful for treating degenerative diseases, rheumatoid arthritis,
CC septic shock, as an antiviral defence mechanism, and for
CC preventing cell death during strokes or trauma. Its amino acid
CC sequence was deduced from a cDNA clone (AAT43709) that can be obdcd.
CC from human Jurkat cell lines or human osteoclastoma stromal cell

CC lines. Recombinant hIAP-1 can be produced in prokaryotic or
CC eukaryotic host cells, or expressed in vivo. It can also be used
CC to screen for modulators of hIAP-1 activity.

Sequence 438 AA;

Query Match 100.0%; Score 269; DB 17; Length 438;
Best Local Similarity 100.0%; Pred. No. 6.7e-26;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 LARAGFYIIGPGRVACFACGKLSNWEKDDAMSEHRRHPNCPF 46
24 laregfyiigpgrvactacgklsnwekddamsehrhrrhpncpf 69

RESULT 3

AAW19746
ID AAW19746 standard; Protein: 618 AA.

AAW19746;

16-SEP-1997 (first entry)

Human inhibitor of apoptosis protein homologue MTHB.

CC Inhibitor of apoptosis protein; IAP; mammalian IAP homologue; MTHB;
CC degenerative disease; infectious disease; autoimmune disease;
CC cancer; therapy; diagnosis.

Homo sapiens.

Key Location/Qualifiers

Region /label= BIR

Region /label= BIR

Region /label= BIR

Region /label= BIR

Region /label= RING_finger

WO9723501-A1.

03-JUL-1997.

20-DEC-1996; 96WO-AU00827.

22-DEC-1995; 95AU-0007275.

(AMRA-) AMRAD OPERATIONS PTY LTD.

Vaux DL;

WPI: 1997-350966/32.

N-PSDB; AAT72711.

Isolated protein homologues of viral inhibitors of apoptosis - used
to modulate apoptosis for treatment of degenerative, infectious or
autoimmune diseases and cancer

Claim 8: Page 51-54; 136pp; English.

CC Mammalian IAP homologue B (MTHB) (AAW19746) is a human homologue of
CC baculovirus inhibitor of apoptosis protein (IAP). Its amino acid
CC sequence was deduced from a cDNA clone (see also AAT72711) isolated
CC from a human foetal liver cDNA library using primers based on
CC human EST sequences that resembled the BIR repeats of Oryza
CC pseudotsugata polyhedrosis virus IAP. IAP homologues (see also
CC AAW19745 and AAW19747-52) and their derivatives and chemical analogues
CC can be used in methods for modulating apoptosis in animal cells,
CC specifically for treatment, by inhibition, of degenerative and
CC infectious disease or, by promotion, of cancer and autoimmune

CC disease.
XX
SO Sequence 618 AA:

Query Match 100.0%; Score 269; DB 18; Length 618;
Best Local Similarity 100.0%; Pred. No. 9, 6e-26;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
1 LARAGFYIYIGPDVACFACGKLSNMEPRKDDASEHRRHFPNCPF 46
204 LARAGFYIYIGPDVACFACGKLSNMEPRKDDASEHRRHFPNCPF 249

RESULT 4

AAW19583
ID AAW19583 standard; Protein: 618 AA.
XX
AC AAW19583;
XX
DT 02-SEP-1997 (first entry)
XX
DE Human apoptosis inhibitor HIAP-2.
XX
KW Apoptosis inhibitor; HIAP-2; HIV; AIDS; neurodegeneration;
KW myelodysplastic syndrome; ischemia; myocardial infarction; stroke;
KW reperfusion injury; toxin-induced liver disease; gene therapy;
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Domain 46..113
FT Domain /label= BIR-1
FT Domain 184..250
FT Domain /label= BIR-2
FT Domain 269..336
FT Domain /label= BIR-3
FT Domain 560..605
FT Domain /label= Ring_zinc_finger
XX
PN W09706255-A2.
XX
PD 20-FEB-1997.
XX
PE 05-AUG-1996; 96WO-1B01022.
XX
PR 22-DEC-1995; 95US-0576956.
PR 04-AUG-1995; 95US-0511485.
XX
PA (UYOF-) UNIV OTTAWA.
XX
PI Baird S, Korneluk RG, Liston P, Mackenzie AE;
XX
DR WPI: 1997-154262/14.
DR N-PSDB; AAT70838.
XX
PT Nucleic acid encoding an inhibitor of apoptosis polypeptide - used
PT to inhibit apoptosis in e.g. HIV or AIDS patients, and for detection
PT of susceptibility to apoptotic disease
XX
PS Claim 27: Page 75-77; 21pp; English.
XX
CC Human XIAP, HIAP-1 and HIAP-2 and murine M-XIAP, M-HIAP-1 and
CC M-HIAP-2 (AAW19581-86) are a new class of mammalian proteins that
CC are inhibitors of apoptosis (IAP) and which are characterised by
CC the presence of a ring zinc finger domain (see also AAW19587) and at
CC least one BIR (baculovirus IAP repeat) domain (see also AAW19588).
CC The IAP amino acid sequences were deduced from cDNA clones (AAT70837
CC and AAT70838) from a human liver library. IAP polypeptides can be
CC expressed in host cells (in vitro or in vivo) and used in methods
CC for treating diseases and disorders involving apoptosis, esp. in a
CC human diagnosed as HIV-positive or as having AIDS, a

CC neurodegenerative disease, a myelodysplastic syndrome or an
CC ischemic injury, selected from myocardial infarction, stroke,
CC reperfusion injury, or a toxin-induced liver disease.
XX
SO Sequence 618 AA:

Query Match 100.0%; Score 269; DB 18; Length 618;
Best Local Similarity 100.0%; Pred. No. 9, 6e-26;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
1 LARAGFYIYIGPDVACFACGKLSNMEPRKDDASEHRRHFPNCPF 46
204 LARAGFYIYIGPDVACFACGKLSNMEPRKDDASEHRRHFPNCPF 249

RESULT 5

AAW13545
ID AAW13545 standard; Protein: 618 AA.
XX
AC AAW13545;
XX
DT 22-JUL-1997 (first entry)
XX
DE Human c-IAP1.
XX
KW IAP; inhibitor; apoptosis; RING finger domain; restinosis;
KW myocardial infarction; nephritis; HIV.
XX
OS Homo sapiens.
XX
PN W09706182-A1.
XX
PD 20-FEB-1997.
XX
PE 06-AUG-1996; 96WO-US12860.
XX
PR 08-DEC-1995; 95US-0569749.
PR 08-AUG-1995; 95US-0512946.
XX
PA (TULAR-) TULARIK INC.
XX
PI Goeddel DV, Rothe M;
XX
DR WPI: 1997-154209/14.
DR N-PSDB; AAT61590.
XX
PT Nucleic acids encoding cellular inhibitor of apoptosis proteins -
PT useful for apoptosis regulation in cells to reduce or increase
PT apoptosis and for pharmacological screening
XX
PS Disclosure: Page 18-20; 35pp; English.
XX
CC The human cellular inhibitor of apoptosis proteins (c-IAP1/2 -
CC AAT61590/AT61591) comprise a series of defined structural domain
CC repeats and/or a RING finger domain; in particular, at least two of
CC a first domain repeat (AAW13547 or AAW13548), a second domain repeat
CC (AAW13549 or AAW13550), and a third domain repeat (AAW13551 or AAW13552)
CC and/or a RING finger domain (AAW13553 or AAW13554), or a consensus
CC sequences derived from these human genes.
CC The nucleic acid is used for recombinant prodn. of human cellular
CC inhibitor of apoptosis protein which modulates apoptosis
CC regulation. The nucleic acids are useful in therapies where
CC increased cell-specific apoptosis is desired, e.g. in restinosis,
CC inflammatory disease states, myocardial infarction, glomerular
CC nephritis, transplant rejection and infectious diseases, e.g. HIV.
CC They can also be used in conditions requiring a reduction in
CC apoptosis.
XX
SQ Sequence 618 AA:
XX
Query Match 100.0%; Score 269; DB 18; Length 618;

Best Local Similarity 100.0%; Pred. NO. 9.6e-26;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 LARAGFYITGPDVACFACGKLSNWEKDDAMSEHRRHFPNCP 46
DB 204 laragfyytgpddrvacfacgsklsnwepkddamsehrhfpncpf 249

RESULT 6

AAW69296
ID AAW69296 standard; Protein: 618 AA.
XX
AC AAW69296;
XX
DT 13-NOV-1998 (first entry)
XX
DE Human H1AP-2 protein.
XX
KW Inhibitor of apoptosis protein; apoptosis enhancer; NAIP polypeptide;
KM proliferative disease; IAP; therapy; cancer; human; H1AP-2 protein.
XX
OS Homo sapiens.
XX
PN MO9835693-A2.
XX
PD 20-AUG-1998.
XX
PE 13-FEB-1998; 98WO-1B00781.
XX
PR 13-FEB-1997; 97US-0800929.
XX
PA (UYOF-) UNIV OTTAWA.
XX
PI Baird S, Korneluk R, Liston P, MacKenzie AE, Pratt C;
PI Tsang B;
XX
DR WPI: 1998-467164/40.
DR N-PSDB: AAW55040.
XX
PT Inducing apoptosis in proliferative mammalian cells with inhibitor
PT of IAP or NAIP polypeptide - also methods for prognosis based on
PT presence of IAP and NAIP, specifically applied to cancers involving
PT p53 mutations
XX
PS Disclosure: Fig 3; 147pp; English.
XX

CC This sequence is the human H1AP-2 protein, which is a inhibitor of
CC apoptosis protein (IAP), and can be used in the method of the invention.
CC The method is for enhancing apoptosis in cells from a mammal with
CC proliferative disease by treatment with a compound that inhibits
CC biological activity of an IAP or NAIP polypeptide. The inhibitory
CC compounds are used to treat proliferative diseases, specially cancers of
CC ovary, breast, pancreas, lymph nodes, skin, blood, lung, brain, kidney,
CC liver nasopharynx, thyroid, central nervous system, prostate, colon,
CC rectum, cervix or endometrium, particularly to increase their sensitivity
CC to chemotherapeutic agents. High levels of the IAP or NAIP proteins are
CC detected in many cancers and are associated with poor prognosis.
CC resistance to chemotherapeutic agents and mutations in p53 (It is
CC suggested that wild-type p53 suppresses transcription of the IAP or NAIP
CC genes). Transgenic animals are used for testing the effects of antisense
CC oligonucleotides and for screening for the inhibitors.
XX

Sequence 618 AA;

Query Match 100.0%; Score 269; DB 19; Length 618;
Best Local Similarity 100.0%; Pred. NO. 9.6e-26;

Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 LARAGFYITGPDVACFACGKLSNWEKDDAMSEHRRHFPNCP 46
DB 204 laragfyytgpddrvacfacgsklsnwepkddamsehrhfpncpf 249

RESULT 7

AAV33998
ID AAV33998 standard; Protein: 618 AA.
XX
AC AAV33998;
XX
DT 26-NOV-1999 (first entry)
XX
DE Human cellular inhibitor of apoptosis-1 sequence.
XX
KM Cellular inhibitor of Apoptosis-1; antisense; diagnostic; therapeutic;
KM c-IAP-1; prophylaxis; infection; inflammation; tumor formation.
XX
OS Homo sapiens.
XX
PN US5958772-A.
XX
PD 28-SEP-1999.
XX
PE 03-DEC-1998; 98US-0205204.
XX
PR 03-DEC-1998; 98US-0205204.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Bennett CF, Cowsett LM, Ackermann EJ;
PI
XX
DR WPI: 1999-561047/47.
DR N-PSDB: AA222143.
XX
PT Antisense compounds complementary to Cellular Inhibitor of Apoptosis-1
PT useful for e.g. diagnostics, therapeutics, and as research reagents -
XX
PS Example 13; Columns 41-46; 32pp; English.
XX
CC The invention provides antisense compounds of 8-30 nucleotides that
CC inhibit the expression of human Cellular Inhibitor of Apoptosis-1
CC (c-IAP-1). The antisense compounds may be used for diagnostics,
CC therapeutics (for modulating the expression of c-IAP-1), prophylaxis
CC (e.g. to prevent or delay infection, inflammation, or tumor formation),
CC as research reagents (e.g. to distinguish between members of a biological
CC pathway) and in kits. The present sequence represents the human cellular
CC inhibitor of apoptosis-1.
XX

Sequence 618 AA;

Query Match 100.0%; Score 269; DB 20; Length 618;
Best Local Similarity 100.0%; Pred. NO. 9.6e-26;
Matches 46; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 LARAGFYITGPDVACFACGKLSNWEKDDAMSEHRRHFPNCP 46
DB 204 laragfyytgpddrvacfacgsklsnwepkddamsehrhfpncpf 249

RESULT 8

AAW13555
ID AAW13555 standard; Protein: 612 AA.
XX

AC AAW13555;
XX

DT 22-JUL-1997 (first entry)
XX

DE Murine c-IAP.
XX

KW IAP; inhibitor; apoptosis; RING finger domain; restinosis;
KM myocardial infarction; nephritis; HIV.
XX

OS Mus musculus.
XX

PN MO9706182-A1.

```

XX 20-FEB-1997.
PD
XX
XX 06-AUG-1996: 96WO-US12860.
PF
XX 08-DEC-1995: 95US-0569749.
PR 08-AUG-1995: 95US-0512946.
XX
PA (TULA-) TULARIK INC.
XX
PI Goedel DV, Rothe M.
XX
DR WPI: 1997-154209/14.
DR N-PSDB: AAT61592.
XX
XX Nucleic acids encoding cellular inhibitor of apoptosis proteins -
PT useful for apoptosis regulation in cells to reduce or increase
PT apoptosis and for pharmacological screening
XX
PS Disclosure: Page 28-29; 35pp; English.
XX
CC The human cellular inhibitor of apoptosis proteins (C-IAP1/2 -
CC AAT61590/T61591) comprise a series of defined structural domain
CC repeats and/or a RING finger domain; in particular, at least two of
CC a first domain repeat (AAW13547 or AAW13548), a second domain repeat
CC (AAW13549 or AAW13550), and a third domain repeat (AAW13551 or AAW13552)
CC and/or a RING finger domain (AAW13553 or AAW13554), or a consensus
CC sequences derived from these human genes.
CC The nucleic acid is used for recombinant prodn. of human cellular
CC inhibitor of apoptosis protein which modulates apoptosis
CC regulation. The nucleic acids are useful in therapies where
CC increased cell-specific apoptosis is desired, e.g. in restitosis,
CC inflammatory disease states, myocardial infarction, glomerularis,
CC nephritis, transplant rejection and infectious diseases, e.g. HIV.
CC They can also be used in conditions requiring a reduction in
CC apoptosis.
XX
SQ Sequence 612 AA:

Query Match 98.1%; Score 264; DB 18; Length 612;
Best Local Similarity 97.8%; Pred. No. 4.1e-25;
Matches 45; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 LARAGFYITGPDVACFACGKLSNWEPRKDAMSEHRRHPNCPF 46
Db 197 laregfyitgpdvactacgklsnwepkdamsehrhthpcef 242

RESULT 9
AAM69299
ID AAM69299 standard; Protein; 612 AA.
XX
AC AAM69299;
XX
DT 13-NOV-1998 (first entry)
XX
DE Murine HIAP-2 protein.
XX
KW Inhibitor of apoptosis protein; apoptosis enhancer; NAIP polypeptide;
KW proliferative disease; IAP; therapy; cancer; mouse; HIAP-2 protein.
XX
OS Mus sp.
XX
PN WO9835693-A2.
XX
PD 20-AUG-1998.
XX
PF 13-FEB-1998; 98WO-IB00781.
PR 13-FEB-1997; 97US-0800929.
XX
PA (UYOT-) UNIV OTTAWA.

```

```

XX Baird S, Korneluk R, Liston P, Mackenzie AE, Pratt C;
PI Tsang B;
XX
XX WPI: 1998-467164/40.
DR N-PSDB: AAV55043.
XX
PT Inducing apoptosis in proliferative mammalian cells with inhibitor
PT of IAP or NAIP polypeptide - also methods for prognosis based on
PT presence of IAP and NAIP, specifically applied to cancers involving
PT p53 mutations
XX
PS Disclosure: Fig 6; 147pp; English.
XX
CC This sequence is the murine HIAP-2 protein, which is a inhibitor of
CC apoptosis protein (IAP), and can be used in the method of the invention.
CC The method is for enhancing apoptosis in cells from a mammal with
CC proliferative disease by treatment with a compound that inhibits
CC biological activity of an IAP or NAIP polypeptide. The inhibitory
CC compounds are used to treat proliferative diseases, specially cancers of
CC ovary, breast, pancreas, lymph nodes, skin, blood, lung, brain, kidney,
CC liver, nasopharynx, thyroid, central nervous system, prostate, colon,
CC rectum, cervix or endometrium, particularly to increase their sensitivity
CC to chemotherapeutic agents. High levels of the IAP or NAIP proteins are
CC detected in many cancers and are associated with poor prognosis,
CC resistance to chemotherapeutic agents and mutations in p53 (it is
CC suggested that wild-type p53 suppresses transcription of the IAP or NAIP
CC genes). Transgenic animals are used for testing the effects of antisense
CC oligonucleotides and for screening for the inhibitors.
XX
SQ Sequence 612 AA:

Query Match 98.1%; Score 264; DB 19; Length 612;
Best Local Similarity 97.8%; Pred. No. 4.1e-25;
Matches 45; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 LARAGFYITGPDVACFACGKLSNWEPRKDAMSEHRRHPNCPF 46
Db 197 laregfyitgpdvactacgklsnwepkdamsehrhthpcef 242

RESULT 10
AAU02925
ID AAU02925 standard; Protein; 306 AA.
XX
AC AAU02925;
XX
DT 12-SEP-2001 (first entry)
XX
DE Angiotensin converting enzyme (ACEV) splice variant protein #25.
XX
KW Angiotensin converting enzyme splice variant; ACEV; interleukin 6;
KW granulocyte colony stimulating factor receptor; glucagon; hypertrophy;
KW platelet-derived endothelial cell growth factor; cardiovascular disease;
KW cellular tumour antigen P53; cyclin-dependent kinase inhibitor 1C;
KW vasoactive intestinal polypeptide receptor 2; arteriosclerosis; cancer;
KW myocardial infarction; coronary arterial thrombosis; renal disease;
KW diabetic nephropathy; muscular disease; immune disorder; sarcoidosis;
KW multiple sclerosis; immune complex nephritis; deep vein thrombosis;
KW noncardiotoxic pulmonary granulomatous disease; endothelial abnormality;
KW vascular disorder; asbestosis.
XX
OS Homo sapiens.
XX
PN WO200136632-A2.
XX
PD 25-MAY-2001.
XX
PF 17-NOV-2000; 2000WO-IL00766.
PR 17-NOV-1999; 99IL-0132978.
XX
PA 10-DEC-1999; 99IL-0133455.

```


PN W09706255-A2.
 XX 20-FEB-1997.
 DR N-PSDB: AAT70837.
 XX 05-AUG-1996; 96MO-IB01022.
 XX 22-DEC-1995; 95US-0576956.
 PR 04-AUG-1995; 95US-0511485.
 XX (UYOT-) UNIV OTTAWA.
 PA
 XX
 PI Baird S, Korneluk RG, Liston P, Mackenzie AE;
 XX
 DR WPI: 1997-154262/14.
 DR N-PSDB: AAT70837.
 XX
 PT Nucleic acid encoding an inhibitor of apoptosis polypeptide - used
 XX to inhibit apoptosis in e.g. HIV or AIDS patients, and for detection
 XX of susceptibility to apoptotic disease
 XX
 PS Claim 27; Page 72-74; 219pp; English.
 XX
 CC Human XIAP, IAP-1 and IAP-2 and murine M-XIAP, M-HIAP-1 and
 CC M-HIAP-2 (AA19581-86) are a new class of mammalian proteins that
 CC are inhibitors of apoptosis (IAP) and which are characterised by
 CC the presence of a ring zinc finger domain (see also AA19587) and at
 CC least one BIR (baculovirus IAP repeat) domain (see also AA19588).
 CC The IAP amino acid sequences were deduced from cDNA clones (AAT70837
 CC and AAT70838) from a human liver library. IAP polypeptides can be
 CC expressed in host cells (in vitro or in vivo) and used in methods
 CC for treating diseases and disorders involving apoptosis, esp. in a
 CC human diagnosed as HIV-positive or as having AIDS, a
 CC neurodegenerative disease, a myelodysplastic syndrome or an
 CC ischaemic injury, selected from myocardial infarction, stroke,
 CC reperfusion injury, or a toxin-induced liver disease.
 CC
 SQ Sequence 604 AA:
 XX
 OY 1 LARAGFYIIGPGDRVACFACGKLSMWEKRDAMSEHRHPPNCP 46
 DB 189 laraqfyiigpgdrvacfaagx1smwepknamsehlrhpkcpl 234
 XX
 OY 1 LARAGFYIIGPGDRVACFACGKLSMWEKRDAMSEHRHPPNCP 46
 DB 189 laraqfyiigpgdrvacfaagx1smwepknamsehlrhpkcpl 234
 XX
 RESULT 13
 AAM69295
 ID AAM69295 standard; Protein; 604 AA.
 XX
 AC AAM69295;
 XX
 DT 13-NOV-1998 (first entry)
 XX
 DE Human IAP-1 protein.
 XX
 KM Inhibitor of apoptosis protein; apoptosis enhancer; NAIP polypeptide;
 KM proliferative disease; IAP; therapy; cancer; human; IAP-1 protein.
 XX
 OS Homo sapiens.
 OS
 PN W09835693-A2.
 XX
 PD 20-AUG-1998.
 XX
 PF 13-FEB-1998; 98MO-IB00781.
 XX
 PR 13-FEB-1997; 97US-0800929.
 XX
 PA (UYOT-) UNIV OTTAWA.
 XX

PI Baird S, Korneluk R, Liston P, Mackenzie AE, Pratt C;
 XX Tsang B;
 XX
 DR WPI: 1998-467164/40.
 DR N-PSDB: AAV55039.
 XX
 PT Inducing apoptosis in proliferative mammalian cells with inhibitor
 XX of IAP or NAIP polypeptide - also methods for prognosis based on
 XX presence of IAP and NAIP, specifically applied to cancers involving
 XX p53 mutations
 XX
 PS Disclosure; Fig 2; 147pp; English.
 XX
 CC This sequence is the human IAP-1 protein, which is an inhibitor of
 CC apoptosis protein (IAP), and can be used in the method of the invention.
 CC The method is for enhancing apoptosis in cells from a mammal with
 CC proliferative disease by treatment with a compound that inhibits
 CC biological activity of an IAP or NAIP polypeptide. The inhibitory
 CC compounds are used to treat proliferative diseases, specially cancers of
 CC ovary, breast, pancreas, lymph nodes, skin, blood, lung, brain, kidney,
 CC liver, nasopharynx, thyroid, central nervous system, prostate, colon,
 CC rectum, cervix or endometrium, particularly to increase their sensitivity
 CC to chemotherapeutic agents. High levels of the IAP or NAIP proteins are
 CC detected in many cancers and are associated with poor prognosis,
 CC resistance to chemotherapeutic agents and mutations in p53 (it is
 CC suggested that wild-type p53 suppresses transcription of the IAP or NAIP
 CC genes). Transgenic animals are used for testing the effects of antisense
 XX oligonucleotides and for screening for the inhibitors.
 XX
 SQ Sequence 604 AA:
 XX
 OY 1 LARAGFYIIGPGDRVACFACGKLSMWEKRDAMSEHRHPPNCP 46
 DB 189 laraqfyiigpgdrvacfaagx1smwepknamsehlrhpkcpl 234
 XX
 OY 1 LARAGFYIIGPGDRVACFACGKLSMWEKRDAMSEHRHPPNCP 46
 DB 189 laraqfyiigpgdrvacfaagx1smwepknamsehlrhpkcpl 234
 XX
 RESULT 14
 AAM13550
 ID AAM13550 standard; Protein; 46 AA.
 XX
 AC AAM13550;
 XX
 DT 22-JUL-1997 (first entry)
 XX
 DE Human c-IAP2 repeat 2.
 XX
 KM IAP; inhibitor; apoptosis; RING finger domain; restinosis;
 KM myocardial infarction; nephritis; HIV.
 XX
 OS Homo sapiens.
 OS
 PN W09706182-A1.
 XX
 PD 20-FEB-1997.
 XX
 PF 06-AUG-1996; 96MO-US12860.
 XX
 PR 08-DEC-1995; 95US-0569749.
 PR 08-AUG-1995; 95US-0512946.
 XX
 PA (TULA-) TULARIK INC.
 XX
 PI Goeddel DV, Rolhe M;
 XX
 DR WPI: 1997-154209/14.
 XX
 PT Nucleic acids encoding cellular inhibitor of apoptosis proteins
 XX useful for apoptosis regulation in cells to reduce or increase
